

REMARKS/ARGUMENTS

Claims 1-14 are pending in this application. By this Amendment, claims 1, 7-8 and 14 are amended. Reconsideration in view of the above amendments or the following remarks is respectfully requested.

A. The Office Action objects to claim 8 for informalities. Applicant respectfully submits that the above amendments obviate the grounds for the objection. Withdrawal of the objection to claim 8 is respectfully requested.

B. The Office Action rejects claims 1-4, 6-7 and 12 under 35 U.S.C. §102(e) over U.S. Patent No. 6,876,640 to Bertrand et al. (hereinafter "Bertrand"). The rejection is respectfully traversed.

Applicant respectfully submits that in an exemplary embodiment according to the invention, a PDSN communicates with a BSC/PCF for transmitting IP multicast data through the TCP or the UDP, converts the multicast packet data into the PPP frame data together with adding the IP multicasting/broadcasting message identifier to a frame header, and transmits the data to the BSC/PCF. The BSC/PCF transmits the data received from the PDSN and identified as the IP multicast data to all or some of the mobile stations, and the mobile station sends the data received from the base station to the higher layer. Accordingly, the multicast packet data is transmitted to the PPP link layer

regardless of the status of the PPP link between the mobile station and the PDSN on the transmission channel, and the multicasting/broadcasting data can be identified using the protocol identifier. See at least pages 10 & 11 of the present specification. Applicant respectfully submits that the prior art fails to disclose, for example, a PDSN 202 that encapsulates the datagram in a frame and attaches a protocol ID in the PPP frame header as an identifier for indicating whether the packet is for multicasting or broadcasting. See step S202 of Figure 2 of the application.

With respect to claim 1, Applicant respectfully submits that Bertrand fails to disclose claimed features as required under §102. For example, Bertrand fails to disclose at least features of transforming the multicast packet data to a PPP frame format having an identification header, wherein the identification header includes information for distinguishing at least a multicast message from a broadcast message, the BSC/PCF transmitting multicasting/broadcasting message to all or some of base stations under control of the BSC/PCF according to header information of the multicast message; or features of transmitting the multicasting/broadcasting message to mobile station through broadcasting channel and combinations thereof as recited in claim 1.

1.) In contrast, Applicant respectfully submits that Bertrand discloses a mobile station 102 (1-3) communicates with only a single one of the PDSNs 120 (1-3). As shown

in Figures 2-3 of Bertrand, no multiple communications exist between a radio network RN 108 (1-2) to a PDSN 120 (1-3) or concurrently exist between mobile stations and a radio network RN 108.

Further, Applicant respectfully submits that Bertrand discloses the location of the PPP register 126 (1-3) can be accomplished by manual entry of the IP address of the PPP register 126 (1-3) in the PDSN 120 (1-3) or by a multicast mechanism. Thus, Bertrand discloses a multicast mechanism between the PDSN 120 (1-3) and the PPP register 126 (1-3). See column 5, line 59-column 6, line 42 of Bertrand.

Applicant respectfully submits that with respect to a layer 2 tunneling protocol (L2TP), Bertrand discloses that multiple tunnels or multiple sessions in a tunnel may exist between a given LNS-LAC pair. Bertrand merely describes the security of L2TP Node – to-Node communications. See column 2, lines 19-48 (particularly lines 34-36) and column 7, lines 20-31 and claim 5 of Bertrand.

Accordingly, Applicant respectfully submits that Bertrand fails to disclose at least features of transforming the multicast packet data to a PPP frame format having an identification header, wherein the identification header includes information for distinguishing at least a multicast message from a broadcast message and combinations thereof as recited in claim 1. Thus, Applicant respectfully submits that Bertrand fails to

disclose at least features of the BSC/PCF transmitting multicasting/broadcasting message to all or some of base stations under control of the BSC/PCF according to header information of the multicast message.

2.) Further, Applicant respectfully submits that Bertrand fails to disclose at least features of transmitting the multicasting/broadcasting message to mobile station through broadcasting channel and combinations thereof as recited in claim 1. In contrast, Applicant respectfully submits a mobile station in Bertrand is engaged in a PPP session with a PDSN. Applicant respectfully submits Bertrand discloses a PPP session between a single mobile station 102 (1-3) and a PDSN 120 (1-3) via an RN 108 (1-2). See Figures 2-3 of Bertrand.

Applicant respectfully submits that Bertrand does not teach or suggest any modification to its disclosure that would result in at least features of a method for multicasting/broadcasting IP data in a mobile communication system including wherein the identification header includes information for distinguishing at least a multicast message from a broadcast message or transmitting the multicasting/broadcast message to mobile station through broadcasting channel and combinations thereof as recited in claim 1.

For at least the reasons set forth above, Applicant respectfully submits that claim 1 defines patentable subject matter. Claim 7 defines patentable subject matter for at least reasons similar to claim 1. Claims 2-4, 6 and 12 depend from claims 1 and 7, respectively, and therefore also define patentable subject matter for at least that reason as well as their additionally recited features. Withdrawal of the rejection of claim 1-4, 6-7 and 12 under §102 is respectfully requested.

B. The Office Action rejects claims 5, 8-11 and 13-14 under 35 U.S.C. §103(a) over Bertrand and U.S. Patent No. 6,693,896 to Utsumi et al. (hereinafter "Utsumi"). The rejection is respectfully traversed.

1.) Applicant respectfully submits that it would not be obvious to one of ordinary skill in the art to combine Utsumi and Bertrand. Applicant respectfully submits that Bertrand discloses a single mobile station engaged in a PPP session with a PDSN. Applicant respectfully submits that Bertrand does not teach or suggest a multicast function to a plurality of mobile stations.

In addition, Applicant respectfully submits that the suggestion for a modification should be found within the cited references. Applicant respectfully submits that Utsumi does not teach or suggest modifications that would result in recited multicast features of the pending claims as Bertrand discloses a single mobile station engaged in a PPP session

with a PDSN. Applicant respectfully submits that Utsumi does not teach or suggest any modifications that would result in the complex and substantial changes to systems disclosed in Bertrand in order to result in a multicast functionality with respect to PPP sessions between a PDSN and a mobile station. For example, Applicant respectfully submits L2TP does not support such functionality. See column 2, lines 19-48 and column 7, lines 20-31 and claim 5 of Bertrand.

2.) However, even if combined, Applicant respectfully submits that Bertrand and Utsumi, individually or in combination, do not teach or suggest features and combinations recited in the pending claims. For example, Applicants respectfully submit incorporating an AMInet set-up-protocol or ASP including an ASP header disclosed in Utsumi into Bertrand would not result in features and combinations thereof recited in claims 5, 8-11 and 13-14. In particular, incorporating the ASP format into the multicast mechanism in Bertrand between the PDSN 120 (1-3) and the PPP registers 126 (1-3) would not result in features recited in, for example, claims 1-14.

With respect to claims 1, 7, 8 and 14, Applicant respectfully submits Utsumi does not teach or suggest at least features of wherein the identification header includes information for distinguishing at least a multicast message from a broadcast message and combinations thereof as variously recited.

3.) With respect to claim 8, Applicant further respectfully submits Utsumi does not teach or suggest at least features of wherein the multicast/broadcast is a multicast packet data that comprises a header information including QoS, multicast/broadcast type, multicast/broadcast group, and length information including body data of the PPP frame format and message body and combinations thereof as recited, and as admitted by the Office Action, lacking from Bertrand. See page 8, lines 5-20 of the Office Action citing Figs. 1, 11 and 5 and col. 17, lines 25-37 and col. 20, lines 5-29 of Utsumi. Applicant respectfully submits that the cited portion of Utsumi are for indicating a transmitting type, such as one or both directions in connection with how a data is transmitted. See Fig. 11 and col. 17, lines 25-36 of Utsumi.

Thus, individually or in combination, Bertrand and Utsumi, would not result in at least features of a method for multicasting/broadcasting IP data in a mobile communication system and combinations thereof as recited claim 1. Claims 8 and 14 defines patentable subject matter for at least reasons similar to claim 1. Further, individually or in combination, Bertrand and Utsumi, would not result in at least features of wherein the multicast/broadcast is a multicast packet data that comprises a header information including QoS, multicast/broadcast type, multicast/broadcast group, and length information including body data of the PPP frame format and message body and

combinations thereof as recited in claim 8. Claim 14 defines patentable subject matter for at least reasons similar to claim 8.

For at least the reasons set forth above, Applicant respectfully submits claims 8 and 14 define patentable subject matter under §103. Further, claims 5, 9-11 and 13 depend from claims 1, 7 and 8, respectively and therefore also define patentable subject matter for at least that reason as well as their additionally recited features. Withdrawal of the rejection of claims 5, 8-11 and 13-14 under §103 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carl R. Wesolowski**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of

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this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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